PROGRESS

OF

MEDICAL SCIENCE.

MEDICINE.

UNDER THE CHARGE OF

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Persistent Hereditary Œdema of the Lower Limbs.—ROLLESTON (*The Lancet* September 20, 1902, p. 805) has observed a very interesting form of persistent œdema in three members of one family. The mother, aged forty-five years, had suffered from the œdema for thirty-five years. The condition had existed in a daughter, aged sixteen years, since she was thirteen years old. A son, aged thirteen years, had had the œdema since the age of ten.

The œdema was permanent as long as the individual led an ordinary life, became more marked after exercise or a warm bath, but disappeared after rest in bed for some days. In all cases it was only troublesome from the weight and size of the swollen legs. There was evidence of enfeebled circulation in all three cases. In the mother's case pressure on the skin would leave an anæmic area for a much longer time than in normal persons. The boy and girl were both "blue children" at birth and were subject to chilblains, both the feet and hands getting livid by cold. The œdema in all cases was painless. It was permanent, and did not come on suddenly as in angioneurotic œdema. The heart, urine, and blood were normal in all three patients. The only effective treatment was rest for days in the recumbent posture. This relief was only temporary.

Rolleston states that the cases appear to resemble the remarkable family described by Milroy, of Omaha, in which out of 97 individuals in six generations, 22 persons (12 males, 7 females, and three of unknown sex) had solid œdema of one or both legs without any special inconvenience or progressive increase in the disease. In these cases the œdema was congenital, except in one instance, whereas Rolleston's cases were hereditary and developed from the tenth to the thirteenth year. Rolleston states that the disease in some respects resembles both Raynaud's disease and erythromelalgia, but differs from both in essential features. He suggests that this peculiar œdema from gravitation may depend on some inherent defect or peculiarity of the small bloodvessels, which allows excessive transudation to occur on very slight provocation. The cases are reported to call attention to the occurrence of cases of œdema not due to the usual causes and which are hereditary and may be congenital.

The Presence of the Widal Reaction in Weil's Disease.—ECKARDT (*Münch. med. Wochenschr.*, 1902, xlix. p. 1129) reports two interesting cases of Weil's disease, in each of which the blood serum showed a strong Widal reaction. The first case was that of a young man, aged twenty-two years, whose illness began suddenly with chills, fever, and general prostration. After several days the fever began to diminish, but severe nose-bleeds occurred, while jaundice and an acute hemorrhagic nephritis set in. On the seventh day on entering the hospital the patient appeared very ill and complained of severe pain in the calves; the tongue was dry and coated; the spleen palpable. The patient soon improved subjectively, and the fever disappeared on the following day, but the jaundice and splenic enlargement continued for over two weeks. On the tenth day of the disease the Widal reaction was tried; this resulted in a positive reaction in a quarter of an hour at a dilution of 1/100; in two hours at 1/1000. It was discovered that the room-mate of this patient had passed through a similar illness about a month before. This case was also investigated, the serum showing an agglutination in three-quarters of an hour at 1/50; in an hour and a half at 1/100, and a partial agglutination in two hours and a quarter at 1/1000.

Grünbaum and the author have both noted that the blood of jaundiced individuals has almost always a considerable agglutinative power with cultures of the typhoid bacillus, while the fresh bile, from the same case perhaps, appears to have no such effect. The agglutinative power in the blood serum of these two cases was, however, stronger than has ever been observed in jaundice, while in six other cases it persisted after the jaundice had disappeared. There were also features in the case observed clinically which were not unlike those of an abortive typhoid fever. If the blood serum in jaundice has this agglutinative effect, then, the author suggests, it might well act as a protection to the organism in cases of existing typhoid infection. This naturally brings up the question as to whether Weil's disease may not, after all, be simply typhoid fever which has been aborted as a result of the development of jaundice. Weil, indeed, in his original article states that the disease may be abortive typhoid, while Fiedler, though opposing this theory, admits its possibility. Haas and Weiss have both noted the coincidence of the frequency of Weil's disease at the height of typhoid epidemics.

Eckardt is guarded in his statement and avoids drawing a hasty conclusion, pointing only to the extremely suggestive character of these observations.

Acute Polymyositis.—BACIALLI (*Il Policlinico*, 1902, No. 13, fasc. 1 and 2, 16) reports from Tizzoni's clinic an extremely interesting case of acute polymyositis. The patient was a man, aged thirty-nine years, who, in August, 1899, began to complain of rheumatic pains in the upper part of his trunk, and especially in the arms, which appeared to be heavy and weak. Eight days later the left arm became swollen, while the general indisposition increased. The swelling soon spread and became diffuse, extending also to the neck, throat, thorax, right arm, and afterward to the legs and feet. These symptoms continued off and on until his entrance into Tizzoni's clinic, in October. At that time the patient was bed-ridden; there was diffuse, subcutaneous œdema, the legs, eyelids, and forehead alone being spared. The mucous membrane of the mouth was greatly injected and œdematous; swallowing was difficult; there was extensive œdema of both upper and lower extremities, of the abdomen, and of the thorax. There was a papular erythema on the back. There was great difficulty in moving the arms and legs. While pressure in the œdematous areas was not painful, yet on deeper palpation severe pain was elicited, clearly due to pressure upon the muscle. The special senses were normal, excepting for slight deafness. The spleen was palpable; nothing remarkable about the reflexes. Reactions to the faradic current were diminished, but elicited by strong currents. The blood showed a slight anæmia; red corpuscles, 3,704,000; hæmoglobin, 75 to 80 per cent.; colorless corpuscles, 5580. The condition remained practically unchanged up to the time of the patient's death. There were at times slight remittent attacks of fever, which rose occasionally to 39½° C., lasting several days. On the 18th of December the patient was suddenly seized with dyspnœa, and died shortly afterward with the phenomena of bulbar asphyxia, due clearly to paralysis of the respiratory muscles. During a febrile period in December a small piece of muscle was removed from the left leg. From the muscle pure cultures of staphylococcus albus were obtained. Similar cocci were seen microscopically in the blood obtained at the point of incision. Pure cultures of the staphylococcus albus were obtained from the heart, liver, and muscle. A centimetre of a twenty-four hours' culture in bouillon injected subcutaneously into a rabbit produced little effect, but a few degrees of fever and no serious impairment of the health of the animal. Microscopically the muscles showed appearances similar to those described by other authors in dermatomyositis. In parts of the muscles there was marked œdema, considerable increase in interstitial connective tissue, with abundant infiltrations of white corpuscles, and here and there extravasations of blood. There were widely distributed inflammatory and degenerative changes in the muscle fibres themselves, of which the author describes three stages:

(1) With considerable increase in the number of the muscle nuclei, while the contractile substance preserved its ordinary structure.

(2) With a light increase in nuclei, while the contractile substance, however, had lost its normal structure, appeared more homogeneous, and was extensively vacuolated.

(3) Where the nuclei, excepting in rare exceptions, were materially diminished in number or have entirely disappeared, while the contractile substance had wholly degenerated into a homogeneous, transparent mass similar to hyaline or waxy material.

These alterations the author attributes to an inflammatory process which has produced in the muscular tissue lesions of various degrees, from simple irritation manifested by a considerable increase in the number of nuclei to much graver lesions, such as degeneration and complete destruction of the contractile substance. He believes the condition to have been a septicopyæmia of very gradual course, similar to those which the old authors have called chronic septicæmias.

The muscular lesions are attributed to the effects of toxic products of the staphylococcus albus. The attenuated staphylococcus albus may have entered through the fauces, which from the beginning were markedly affected.

SURGERY.

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The Treatment of Testicular Ectopy.—COUDRAY (*Revue de Orthopédie*, January, 1902), after a careful review of the subject, states, in conclusion: 1. The treatment of testicular ectopy—ectopy without hernia—should be commenced early, at the age of two or three years. 2. Before attempting mechanical treatment one should try the thyroid treatment, with a dose of 5 centigrammes a day for those under the age of three, and 10 centigrammes daily for those who are over that age, and the dose in the latter class progressively increased to 15 or 20 centigrammes daily. 3. If two or three months of this treatment gives no appreciable results, then one should have recourse to mechanical reduction by pressure or traction. This should be done for four or five minutes each day. 4. When the testicle is distinctly beneath the ring and the cord slips easily along one should advise the carrying of a bandage like a fork, which has the effect not only of retaining the testicle beneath the external ring, but also prevents the wall guarding the ring against the issue of intestine. This wall is often very feeble in these cases. Experience has shown that the unilateral bandage cannot be well applied in the case of young children. It may be preferable in those cases of unilateral malposition, and this may also apply to the hernia of young children, but the double bandage is to be preferred, as a rule, as it has much more firmness. It is well to wear this bandage two or three years, renewing it whenever necessary. The fixation of the testicle at the bottom of the sac may be a useless manœuvre. The bloodless method has the greatest chance of success in young children and those up to the age of ten or twelve years. In those who are older it seems that its employment favors the development of hernia or hydrocele of the cord. 5. Surgical interference is indicated in those cases where there has been some check in the preceding methods; that is to say, when the cord cannot be drawn out or when the testicle is painful